

MEETING TO DISCUSS A PROCESS TO MAKE FISH AND WILDLIFE DECISIONS

JULY 23, 1997, 9:30 a.m. - 4:30 p.m.

THE RIDPATH HOTEL

SPOKANE, WASHINGTON

I. Introductions and Review of Agenda.

William Stelle, National Marine Fisheries Service regional administrator, thanked everyone for coming, led a round of introductions and reviewed the agenda for today's meeting. A copy of the July 23 meeting agenda, together with a list of meeting participants, are attached as Enclosures A and B. The following is a distillation, not a verbatim transcript, of items discussed and decisions made at this meeting.

Please note that some of the enclosures referenced in these minutes may be too lengthy to routinely attach. To obtain copies of any of the enclosures from the July 23 meeting, please call Kathy Ceballos of NMFS at 503/230-5420.

Stelle began by saying that the main focus of today's discussion will most likely be Items II and III -- the discussion of the decision process, schedule, goals, criteria and information needs related to the 1999 decision, and the discussion of river governance issues. Item II is intended to engage all of us in an overview of the larger decisional framework which is being constructed for the hydropower system, in an attempt to explain to those at the policy level the bigger picture, Stelle said. We'll talk about the status of this process, the types of options that are being analyzed, the methods by which they will be analyzed, the relevant decision criteria that may be suitable for selecting amongst those options, as well as what information we will and will not have when the time comes to make that decision. We'll also talk about the schedule by which that information is expected to be generated, said Stelle.

At the request of Joyce Cohen of the Northwest Power Planning Council, Dave Geiger of the Corps of Engineers briefed the meeting participants on the status of the diffuser grating problem at Bonneville Dam's Powerhouse 2. Last Thursday, Geiger explained, workers at Bonneville discovered that at least two of the diffuser gratings were missing from the auxilliary water supply system at the north junction at PH2. They brought in divers on Monday, who discovered that the actual number of gratings missing is closer to 18. They believe the problem is related to debris buildup -- the gratings are designed to blow off when pressure become too great, rather than taking out a section of wall, Geiger explained. There are now adult fish stranded in that auxilliary water supply system, where they don't belong -- salmon, steelhead and sturgeon.

Experts from the Corps and other agencies are now weighing various possible fixes for the problem, Geiger continued. They have shut off the auxilliary water supply, to reduce attraction flows and help to ensure that no additional fish enter the system. One of the possibilities is that we may have to completely shut down Powerhouse 2, so that we are no longer attracting fish to that side of the river, he explained. Current river flows are too high, however, to shut down the powerhouse and stay within the spill cap and TDG waiver limit at the project -- flows in the Columbia will need to drop to about 220 Kcfs for that to happen. Our best estimate is that it will

be mid-August before flows recede that far, Geiger said. The most optimistic estimate is that it will take about three weeks to do the necessary repairs and replace all of the missing gratings; repairs cannot begin until the powerhouse is shut down.

How many fish are we talking about, asked Stelle -- lots? We don't know yet, Geiger replied. It could be lots. There is also no way to know, at this point, how many of those fish are from listed stocks. It's a bad situation -- no question, Geiger said. In response to another question, Geiger said that it would be physically possible to shut down Powerhouse 2 immediately, and pass the river flow through Powerhouse 1 and the spillway -- it's a question of whether or not the dissolved gas levels resulting from that action would be acceptable to the region, he explained. There are also fallback concerns associated with the Powerhouse 1 fish ladder when spill levels are too high, added Brian Brown of NMFS.

In response to a question from Cohen, Geiger said the Technical Management Team will be discussing this question at length at its meeting later today. We'll make sure that we keep everyone informed, and will share whatever information we have on the situation as it comes in, he added.

Mike Field of the Power Planning Council then raised the issue of the planned outfall relocation work at Bonneville Powerhouse 2, saying that the Tribes have expressed concern that the outfall project is being constructed before the region has had an opportunity to thoroughly review the adequacy of the design. The Tribes are asking that this project be delayed for two years, said Field, and I think it may be appropriate to ask the Implementation Team to make a policy decision on that request, prior to the start of construction.

The IT has discussed this issue at length, said NMFS's Donna Darm, and wasn't able to resolve it.

My understanding is that the states are in favor of going ahead with this project, but that the Columbia River Inter-Tribal Fish Commission is not. Brown added that it is his understanding that current fish guidance efficiency at PH2 is on the order of 50%. At some point, he said, we need to improve the proportion of fish guided into the bypass at that project. He described some of the engineering and biological concerns associated with the existing bypass and outfall system, including low-velocity areas within the structure and predation problems at the current outfall site. The work that is proposed at PH2 will address all three of those problems, said Brown -- it will guide more fish into the system, treat them better while they're inside, and release them in a more salubrious in-stream location.

Brown described the current schedule for this work, as well as some of the technical enhancements the PH2 bypass improvements will incorporate. The main risk entailed with proceeding as the technical staffs have recommended is the fact that, if turbine collection is the fish guidance improvement option chosen at Powerhouse 2, the volume of water the surface collector system will need to handle would far exceed the capacity of the outfall as designed -- in fact, it would far exceed the capacity of any outfall ever designed for use on the Columbia River, said Brown. The surface collector system would have to be able to dewater volumes on the order of 15 Kcfs. There are also technical concerns about the modeling information on surface collection, he explained.

Cost is another major concern, Brown continued -- we're talking about \$40 million to cover the cost of the outfall and the other modifications, and the costs may go higher. I think this may be a good project to send back to the technical committees and to the System Configuration Team, said Cohen -- there are going to have to be some modifications to their recommendations, based on the comments I've heard. In response to a question about how this project fits into the Corps' FY'98 Columbia River Fish Mitigation budget, Geiger said debate on that appropriation is ongoing on Capitol Hill; the Senate has recommended that the Corps' FY'98 CRFM appropriation be set at \$117 million, rather than the \$127 million requested; the House is recommending around \$85 million.

The latest information I have is that the final appropriation will be closer to the Senate number than it is to the House number, and if you split the difference between the two, that gives us \$101 million in FY'98, Geiger said. We're now using that \$100 million as sort of a target on the wall, and asking, if we do get that amount, what do the priorities look like? The SCT has discussed that question at its last two meetings, and has developed a set of high-priority items that total about \$90 million. The Bonneville PH2 improvement work for FY'98 is included in that \$90 million. The SCT has also developed a list of other project priorities, which bring the FY'98 total up to \$108 million, he continued. We feel that's probably the maximum we could expect to get from Congress, so in answer to the original question, the SCT has already taken on the task of developing FY'98 budgetary priorities.

One item that might help explain why the technical committees have given the PH2 bypass improvements a high priority, despite the technical uncertainties, is the fact that the benefit of implementing these improvements is expected to be on the order of a 3%-5% improvement in survival at Bonneville Dam, Brown said. While many of the other items in the \$100 million CRFM budget are research projects designed to gather information for the 1999 decision, the work at Bonneville is viewed as something that will produce a tangible survival improvement.

Has this project been reviewed by the Scientific Review Panel? asked Carl Merkle of the Umatilla Tribal staff. I don't believe so, Brown replied. And what is the time-frame for issuing the contract for the outfall relocation work? asked Field. The initial contract, covering the purchase of pipe stock for the outfall supports, is coming up very quickly, Geiger replied. However, that's not a very large contract, and would not be an irreversible action -- it would simply keep the project on schedule. I think there would be time to kick this back to the Implementation Team one more time, if that is the will of the region, he said.

From my perspective, this project has already been fairly extensively evaluated, both within the IT and the SCT, said Stelle. The description Dave has just provided of the SCT ranking process confirms what I understand to be an agreement that this is an important project to do. I am cautious about having this group weigh in on one particular project, and saying that the Implementation Team and the technical folks have it wrong. If new information comes up, indicating that this project should be revisited, then it might be appropriate to ask the IT to revisit it. In the absence of that new, relevant information, I think we have to stay the course on this, Stelle said.

II. Discussion of Decision Process, Schedule, Goals, Criteria and Information Needs.

A. Overview of Process, Goals, Scope. Brown provided this overview, working from a series of

overheads. These overheads, and the text of Brown's presentation, are reproduced in Enclosure C, a document titled "Decision Process for Fish and Wildlife Restoration" (please refer to this enclosure for details).

The reason we need a decision process, as most of you are aware, is the fact that a number of salmon runs in the Columbia River Basin are in dire straits, Brown began. Three species have already been listed, other species have been proposed for listing, and the National Marine Fisheries Service has stated its intent, in our most recent Biological Opinion on the Operation of the Federal Hydroelectric Projects, to make a decision in 1999 on the longterm future of salmon restoration in the Columbia Basin.

The Northwest Power Planning Council and the four Lower River Treaty Tribes have also developed fish and wildlife plans, which call for similar modifications, Brown continued. The NMFS plan addresses, specifically, the drawdown of the four Lower Snake River projects, which is the heart of the decision that will be made in 1999. The Council and Tribal plans discuss modifications at those four projects, plus John Day Dam.

The purpose of this presentation is to stimulate a discussion of the process that will be used to make a decision about the regional hydrosystem and its effects on salmon and resident fish and wildlife species, Brown said. We need to identify the appropriate goals, scope and criteria for that decision process, to determine what information is needed to support that decision, and to discuss a possible alternative schedule for making that decision, in response to regional concerns that we may need to make it prior to 1999.

Brown continued on through his presentation, touching on elements of process; possible alternative goals put forward by the Columbia Basin Fish and Wildlife Authority, CRITFC, the Northwest Power Planning Council and NMFS; the alternative actions under consideration for implementation in 1999 (expanded barging, drawing down the Snake River dams to natural river level, drawing down the four Lower Snake River dams plus John Day Dam, and improving in-river conditions); the scope of the decision (should it cover only Snake River salmon recovery and delisting? All Columbia Basin salmon and steelhead? All Columbia Basin fish and wildlife?); potential decision criteria, current schedule; what information will be available to support a 1999 decision; what information will be available to support an earlier decision in March 1998; what additional information might be available if the decision is postponed; and possible next steps (please see Enclosure C for details of Brown's presentation).

Will the analyses being developed to project the biological and economic outcomes of the various options be displayed in such a way that we can cross-reference those projections with the various goals under discussion? asked Stelle. I would like to be able to look at an option and its associated projections, and see, for example, that it meets Goal A, but does not meet Goal B, he said. You will be able to do that, Brown replied. Dave Marmorek, in his portion of this presentation, will illustrate some of the decision matrices that are being developed for the biological portion of the analysis.

In the "Goals" section of your presentation, said one meeting participant, you say that NMFS's goal is to "designed to 'restore the Columbia Basin ecosystem and recover Snake River salmon.'" My understanding is that the final NMFS Recovery Plan is focused on delisting the listed Snake River stocks, as opposed to some broader goal, he said.

The goal that is described here is drawn from the Recovery Plan, Brown replied. The Recovery Plan does define delisting criteria, as the statutes require. Part of what we're trying to get to, in the development of this decision process, is some agreement on what the goal of the major decision should be. Should it be delisting the listed Snake River stocks? Should it be rebuilding those stocks to harvestable levels? Should it include the needs of stocks that are not yet listed, but are candidates for listing? That's part of what we're trying to get at in this discussion of decision criteria, Brown said. Through consultation over the next several months, we hope to get some answers to these questions. To respond to your question directly, said Brown, NMFS' current focus is on the delisting of Snake River stocks.

When you talk about this decision-making process, said Alan Stay of the Colville Tribes, who or what do you view as the decision-making entity, or is that something to be developed through this process? Second, I've heard it said that implementing this decision will ultimately require Congressional action. Is that an assumption, going into the process, or is that an alternative which may come out of the process?

On your first question, said Stelle, one of the purposes of trying to construct this process and engaging in these discussions is to flag the fact that the governments in the region need to construct a decision-making process that can be applied to this framework. That process has not yet been fully developed, and it needs to be developed. I don't think it's simply a normal Administrative Procedures Act decision-making process by the Corps of Engineers -- that is not the procedural mechanism by which this decision will be made. Obviously that will be a part of it, said Stelle, but in my view, it needs to partake of a more formal and rigorous discussion among the regional governments represented here on whether or not there is a preference for one group or the other. That's one of the blank boxes that we need to fill in. One of the purposes of today's discussion is to lay out the graphics of that framework, so that we can begin to design the selection mechanism we want to employ.

On your second question, about the need for Congressional authorization or appropriations, whatever alternative is chosen -- the operation of the FCRPS as it is currently configured, or in some future configuration, will require continued annual appropriations from the Federal government, said Stelle. That appropriation will require future legislative action. Second, depending on what the preferred option is, the implementation of that option may require legislative authorization as well, if that authorization goes beyond project purposes. If the preferred option is within the current authority of the Corps, Stelle explained, then new authorizations are not required.

Will this effort also include a process to reconcile the various goals listed here? asked Bruce Lovelin of the Columbia River Alliance. That's certainly one of the things we'll attempt to accomplish, yes, Brown replied.

A couple of questions on alternatives, said Jim Baker of the Sierra Club. First of all, why is expanded bargaining still under consideration as a long-term recovery action, when the 1994 peer review and NMFS's own Independent Scientific Advisory Board have both told us that bargaining cannot possibly save the Snake River fish from extinction? Second, what exactly do you mean by "expanded?" Baker asked.

To answer your first point, one of the questions we're trying to answer is how to deal with the

existing system, replied Brown. Barging is one of the mitigation measures that has been used for the last several years. You're correct that we have not, in employing barging in recent years, had smolt-to-adult survival levels that have been sufficient to exceed the level of survival needed for recovery. By the same token, we have not been able to show adequate levels of smolt-to-adult survival in the fish that were allowed to migrate in-river, and we also don't know, beyond our ability to look at the historical record of previous runs, how some of the other alternatives will prove out in biological analysis, said Brown. What we're trying to do is carry through each of these options, and through this list of alternatives, balance the problem with possible solutions. If, as you say, there is no hope that expanded transportation will allow us to reach the desired level of smolt-to-adult survival in listed stocks, we hope to be able to show that through this process.

As for your second question, in terms of what kinds of improvements have been proposed for the barging program, the specific improvements include better ways of collecting fish, such as surface collection; ways to improve the proportion of fish that are collected, through better surface collection and improved screen technology; ways to improve the handling of collected fish, to reduce the level of stress for those migrants through things like direct loading. The BiOp also describes additional barges, both to accommodate direct loading, and to reduce holding times and transport densities. Those are the kinds of measures that would be included in an expanded barging scenario, Brown said.

What about species that are anticipated to be listed from other parts of the system? asked Stay. So far the decision has been focused primarily on the Snake River projects, Brown replied. However, there are some in the region who feel that decisions about those Snake River projects could adversely affect other fish that may be listed later. For example, if you take out the Snake River projects, you could reduce the amount of flow required to move fish out of the Snake River system, and by so doing, reduce the amount of Snake River flow that is passed through to the lower river, and is available to move fish through that reach. Some might argue that that would be an adverse effect on other species. If John Day drawdown is ultimately included among the recovery measures chosen, that would perhaps reduce the need for additional flow from the Snake, said Brown.

In your presentation, you've said that the biological portion of this analysis is being addressed through PATH, while the economic analysis is being done through the Drawdown Regional Economic Workgroup, said Lovelin. Do you anticipate the need for a third group or process to analyze the treaty and legal side of this decision? We're in the early stages of developing a process for developing the decision criteria related to the treaty and legal obligations, Brown replied. We'll be developing what those obligations are as part of this consultation process.

In response to another question, Brown said that, while there has been some discussion of a new Memorandum of Agreement, and that a new MOA has been requested by the Northwest Senate delegation, that doesn't mean that there has been a decision or a commitment to enter into another agreement.

Lorraine Bodi of American Rivers made the point that there appears to be a disconnect between the various schedules laid out by Brown in his presentation. In particular, she said, I see that, according to the schedule for MOA II and signed BPA power contracts, those processes are proposed to be concluded relatively quickly. However, some of the key decisions that will effect

fish and wildlife funding, and how much we need to recover from BPA, are scheduled to conclude a year or more later than MOA II and the BPA subscription process. I wanted to make the point that, as part of this decision-making process, we need to look at the timing of the power decisions and the fish decisions, because you can't make those financial decisions until we know what the recovery measures will be. To do it the other way around puts the cart before the horse, and jeopardizes the fish program.

As Brian said, MOA II is something that the Northwest Senate delegation has proposed, but a decision to enter into another Memorandum of Agreement has not yet been made, said Stelle. In terms of the BPA subscription process, that's something that is being discussed between the utility community and BPA now. Whether or not that process sticks to a mid-1998 schedule is also an open question.

Moving on to the 1999 decision schedule, Brown described the various analyses PATH is expected to produce in time to inform that decision; these include completed retrospective and prospective analyses for spring, summer and fall chinook and steelhead, the projected results of each recovery alternative for listed ESA stocks, Mid-Columbia stocks and Lower Columbia stocks, as well as an analysis of the competing biological hypotheses.

In essence, Brown explained, these competing hypotheses are an attempt to explain what is the primary driver of mortality in the system, either 1) delayed mortality associated with the continuing effects of the hydrosystem or 2) ocean effects. PATH will also produce an analysis of which alternatives are best under the various hypotheses. In addition, said Brown, the economic analysis will be complete, at least for the Snake River projects; a detailed analysis of the costs associated with John Day Dam will not be available by 1999, due to a Congressional restriction that has precluded the start of a John Day feasibility study. All we'll have, said Brown, is a gross estimate of \$50 million-\$100 million in annual costs associated with implementing John Day drawdown. We may have some information beyond that, said Geiger, but the likelihood that we can produce the same kind of definitive analysis for John Day that we'll have for the Lower Snake projects is infinitesimal, given the timeline Congress has imposed.

Brown moved on to what information will and will not be available if the decision is made in March 1998. By that time, PATH will produce preliminary analyses of spring, summer and fall chinook, although those analyses will not have undergone peer review, and may be subject to significant change. The decision analysis for steelhead will not be complete by that time, nor will the comparison of how alternatives effect different stocks. In terms of the economic side of the analytical question, preliminary economic estimates will be available for the Snake River projects, but an estimate of the capital cost of John Day drawdown will not be completed by March 1998. Preliminary costs for other fish and wildlife measures will be available and, in general, this analysis should produce enough information to help inform MOA discussions, the BPA subscription process and the discussion of a stranded cost mechanism.

So under the current schedule, this is the best we can do, said Baker. Are there any opportunities to accelerate these analyses, such that we get the same level of information in March 1998 that the process is scheduled to provide in 1999? The short answer is, we're already stretched to meet the current schedule, replied PATH coordinator Dave Marmorek. What if more resources were brought to bear? asked Baker. The process might take even longer, Marmorek replied.

I'm pretty much convinced, from what you and others have said, that it's going to be difficult to speed up the decision on dam modifications, said Bodi. If anything, to be realistic, we might see some slippage in the current schedule. It strikes me, however, that one thing we might be able to do is make a decision such that it's clear, to all the parties in the region, that we're going to pursue the longterm strategy of fish in the river, even if we're using transportation as an interim measure. Has NMFS given any thought to that type of staging of the decision process? asked Bodi.

At the moment, the short answer is no, Brown replied. The approach we've laid out in the decision criteria to date has been to gather up the pieces and, before supporting one path or another, collecting enough additional information to be able to project the results of the various implementation options, and to review those projected results across other species that may be affected by the decision.

Is the seasonal drawdown option still on the table? asked Duane Mecham of the Interior Solicitor's Office. That was one of the options described in the 1995 Biological Opinion, Brown replied; in subsequent review through the SCT, it was recommended that further analysis of that option be discontinued.

Brown moved on to the implications of delaying the 1999 decision, observing that it appears probable that this might allow for completion of the John Day economic analysis, and would also provide the opportunity to do additional biological analysis. What kind of additional information we would get would depend on how long the delay was and what kinds of conditions were present in the intervening years, Brown said. In other words, the additional information may or may not be significant; there doesn't appear to be a compelling reason to delay the decision just to get better biological information, despite the fact that, as Dave will tell you, the PATH process is unlikely to definitively answer all of the scientific questions associated with this decision.

Returning to the status of the John Day drawdown feasibility study, Geiger explained that the Corps' FY'98 CRFM budget request includes \$250,000 to scope this study; once that scoping work is completed, the results will be submitted to Congress, which will then make a decision about whether or not the study itself should get underway in 1998. If Congress agrees, said Geiger, the FY'98 budget also includes \$3.2 million for the John Day study; the Corps will have 90 days to complete the scoping work. If all goes well, said Geiger, it's conceivable that the study could get underway within a few months of the conclusion of the FY'98 appropriations process.

One additional point on the biological analyses, said Stelle -- effective next year, the Corps will have PIT-tag detection capability at McNary Dam. That means that 1998 will give us the first year of reach survival data through John Day pool, so that's one additional piece of information we'll have in connection with John Day.

In response to a question from Mary Verner of the Spokane Tribe, Brown said that the PATH analyses will not address resident fish and wildlife. We believe that there is a lot of information available on resident fish and wildlife, from the various fish and wildlife agencies and Tribes with resident fish and wildlife management responsibilities, which can be brought into this process if the region feels that is appropriate in terms of the scope of this decision, said Brown. Under "Next Steps," we talk about the identification of other information needs; the fish and

wildlife area is probably one that needs some additional development, along with John Day costs and treaty and legal obligations.

Do you plan to issue the Salmon Recovery Plan at the same time you're trying to figure out this regional decision process? asked DeWitt Moss of the Northside Canal Company. The current schedule calls for the Recovery Plan to go to the ISAB for review prior to release, Brown replied. In the hydro areas, the Recovery Plan really doesn't change any of the direction laid out in the Biological Opinion -- it's designed to be consistent with what I've described in terms of the decision process.

When you talk about the need for regional discussions, are you assuming that those will take place within this forum? asked BPA's Alex Smith. The forum discussion is the second item on the agenda, where we'll get into the river governance issues, Brown replied.

B. Schedule Alternatives. This topic was addressed during the previous agenda item.

C. Biological Information from Plan for Analyzing and Testing Hypotheses (PATH).

Marmorek provided an overview of the PATH process, working, like Brown, from a series of overheads and pausing for occasional questions or comments. These overheads, which contain the gist of Marmorek's extensive presentation, are reproduced in Enclosure D.

You indicate that PATH will be looking at the impacts of the various recovery pathways on lower river, non-listed salmon, said Stay -- is it true that PATH will not be looking at their impacts on upriver resident fish? That's correct, Marmorek replied -- resident fish impacts are not a part of PATH's current scope of work. PATH grew out of the 1995 BiOp, and shares that document's focus on chinook salmon. There is a gap there, admittedly, and I think it would be a good idea to look at how we might integrate analyses of effects on resident fish.

So the work product PATH will be providing will tell us what the alternatives are, what the impacts of those various alternatives are expected to be on salmon, listed and otherwise, but you would not be able to tell us whether or not those preferred alternatives might have devastating effects on resident fish? asked Stay. PATH is looking only at anadromous fish, replied COE's Greg Graham, study manager for the Lower Snake River Feasibility Study. The Feasibility Study, on the other hand, will include an analysis of the effects of whatever pathway is chosen on resident fish and other aquatic organisms at the four Lower Snake projects.

Are the Snake River drawdown options PATH and the Feasibility Study are investigating only a single option, in reality -- drawdown of all four Lower Snake projects? asked Stelle. Or will PATH be analyzing subsets of that option -- drawdown at project one, project two, project three and project four, in other words? At this point, we're looking at all four, or none, Graham replied. Why? Stelle asked. Time, primarily, said Graham. The door is open to do more of an incremental drawdown analysis, he added -- it will probably be based primarily on what the biological outputs are; if the biological analysis indicates that there might be an incremental drawdown scenario that would be beneficial, we can certainly customize an alternative for further investigation.

In response to another question from Stelle, Marmorek said PATH's spring/summer chinook evaluation includes Snake River stocks, six Lower Columbia stocks and three Mid- and Upper Columbia stocks. The fall chinook analysis will probably include only four stocks: the aggregate

Snake River stock, the Hanford Reach stock and two others from the Lower and Mid-Columbia. The distribution of the steelhead index stocks we'll be using in the analysis is similar, he added.

In the same context as Will's question, is flow augmentation either on or off in the PATH analysis, or are you looking at any alternative flow augmentation scenarios? asked Bodi. I'm not sure, replied Marmorek -- I believe the analysis assumes that current flow augmentation rules would be in place. Are they connected with achieving a particular flow target or velocity equivalent? asked Bodi. I believe so, Marmorek replied. I guess my point is that there may be some middle ground between no flow augmentation and the current levels of flow augmentation, said Bodi -- if PATH is only looking at all or nothing, that doesn't really help us refine the decision. Part of what we're trying to do is to look at the bookends first, to see what effect they have, said Marmorek. Once we've done that, we'll look at the finer points. I don't mean to imply that we're ignoring everything in between all and nothing -- it's just more efficient to do the analysis this way.

In response to another question from Bodi, Marmorek explained that the in-river improvement option involves minimal, or perhaps no, transport, as well as improved flow augmentation and surface bypass -- its goal, essentially, is to maximize survival of fish through in-river passage.

Will you have any sort of quantitative relationship as far as the influence of hatchery fish on wild fish, or will you deal with that through some sort of probability statement? asked Casavant. We've done some quantitative analyses -- for example, we looked at how the survival of wild stocks in streams that have a lot of hatchery inputs compares to the survival of wild stocks in streams that have very little hatchery input, Marmorek replied. The results of those analyses are a little confusing; in some cases, it looks as though those hatchery inputs made things worse for the wild stocks, and in others, it looks as though they had little or no effect. Those are only preliminary analyses at this point; ultimately, they will give us some useful information, but in the end it's going to come down to our best guess -- a probability statement, said Marmorek.

In response to a question from Field, Marmorek directed the group's attention to the graph on page 5a, which shows fluctuations, from good to bad, in climate and ocean conditions for salmon for the years 1952 through 1992. If you superimpose this graph on some of the survival graphs for the various index stocks, the relationship is striking, said Marmorek -- there is a very strong commonality in terms of fluctuations in climate/ocean conditions and survival. When you look at this graph, you see that, generally, conditions were better than average in most years prior to 1970. Since then, conditions have generally been worse than average, in particular since 1976. In assessing the future, you can make a variety of assumptions about climate and ocean conditions - - you can assume that this general pattern, with some good years and some bad years, will continue, or you can assume that there is roughly a 20-year cycle of good conditions and bad conditions, and that we're now heading into a period of good conditions. It could be that, if conditions stay bad, none of the system configuration options we're considering will be sufficient to bring about recovery, Marmorek said -- that's one of the things PATH is aiming to find out.

Field asked why Montana isn't represented among the PATH participants. The other states -- Oregon, Idaho and Washington -- all have fisheries biologists who are closely involved in this effort, as does CRITFC, Marmorek replied. Montana was invited to participate in ANCOOR, the precursor to PATH, but didn't see the need to supply a staff person. In other words, they've been invited, but have not chosen to participate. Bill Shake added that the U.S. Fish and Wildlife

Service, which also hasn't actively participated in PATH to date, has now hired an additional staff person who will be participating in PATH from here on out.

Marmorek continued on through Enclosure D. What do you mean by "...robust to a range of possible outcomes" (on page 16 of Enclosure D)? asked Steve Crow of the Northwest Power Planning Council. That we have relatively high confidence that a given action will produce the stock response we desire, Marmorek replied. For example, if we choose a course of action that will only work if ocean conditions improve, but won't work at all if they don't, that's not a very robust decision -- it's not a course of action we can have a great deal of confidence in, in other words.

Marmorek concluded his presentation by talking about the ways in which PATH work products will help to make the 1999 decision, and by sharing a few hypothetical examples of the types of visual tools and decision matrices the PATH process will eventually produce (see pages 17a-20 of Enclosure D for examples). The final page of the handout lays out when the various PATH work products are expected to be available. The bottom line: under PATH's present schedule, final, peer-reviewed drafts of the spring/summer chinook, fall chinook and steelhead analyses, as well as integration across species, will be available to the region by October 1998.

How much cross-pollination is there between the PATH analyses and the economic analysis being preformed by DREW? asked COE's Eric Mogren. We've been meeting regularly to ensure that the biological analyses we're conducting will produce the work products DREW needs to complete its analyses, Marmorek replied.

D. Information Available from Economic and Engineering Studies. Graham provided a concise overview of the Corps' Lower Snake River Feasibility Study, like Brown and Marmorek, using a series of overheads as the basis for his presentation. These overheads, and the gist of Graham's presentation, are contained in Enclosure E (please see enclosure for details).

A couple of important things to point out, Graham began -- first, this study is looking only at actions, decisions and recommendations pertaining to the four Lower Snake River projects. The Corps will not be making decisions that affect John Day as a result of this feasibility study. Second, the only drawdown option we're currently investigating is year-round, natural river drawdown, the complete evacuation of all four Lower Snake reservoirs -- Ice Harbor, Lower Monumental, Little Goose and Lower Granite. We would return the 140 miles of the Snake River from its confluence with the Columbia up to Lewiston, Idaho, to a free-flowing reach, in other words, Graham said.

Graham spent a few minutes going over the major components of the Feasibility Study, touching on the engineering studies related to drawdown and system improvements, the socio-economic studies, schedule, NEPA requirements, and the effects, on the completeness of work products generated, of an accelerated schedule for the Feasibility Study effort.

If the decision is made to draw down Lower Granite, could you do that within one year? asked Casavant. If that decision is made, the first thing we need to do is secure the necessary funding, Graham replied. Then we would go through the design and contracting processes, and mobilize equipment. That could take some time, because the project will require a lot of heavy equipment, and there isn't a lot of it available here in the Northwest -- we would have to bring it in from all

over the country. I would say, off the top of my head, we could implement drawdown at all four Lower Snake projects within five years, Graham said.

Before closing out on this general topic, representatives from some of the environmental groups present today have asked for an opportunity to make some observations, said Stelle. Bodi began this presentation by saying that, in the context of the decisionmaking discussion, she had four main points to make. First, she said, we agree that it will be difficult to accelerate the schedule for the decision on major dam modification, and make that decision before 1999. Much as we would like to see that happen, after listening to the presentations on the various processes underway, we agree that that would be difficult, she said.

My second point is that there are some things we can do productively prior to 1999, Bodi continued. One thing we would like folks to consider is the possibility of choosing between the barging path and the in-river path as our major recovery options in 1998. That's not to say that we would stop barging all fish; it would still remain an interim device. However, we would make a decision that it would not be our long-term recovery path. The reasons for this are simple, she said: we need to restore the health of the in-river ecosystem if the Columbia River salmon runs are to survive; the fact that transport alone is not enough to ensure recovery-level returns to the spawning grounds.

My third point is that long-term funding decisions must be based on our recovery measures, and not the other way around, said Bodi. For that reason, we urge you to reject the calls for a cost cap in advance of the salmon plan, and to support funding for the common measures found in the federal, state and Tribal recovery plans, so that we do not prejudge some of the decisions that may be coming in the future.

Last but not least, we want to commend the presenters we heard today for a variety of reasons, she continued: for pulling together the various decisionmaking targets put forward by the federal, state and Tribal parties; for trying to pull together the various legal obligations, such that we have a coherent approach under ESA, the Northwest Power Act and the region's Tribal obligations; for recognizing the need to look at independent science, and to follow the PATH process through to conclusion.

Tim Stearns of Save Our Wild Salmon observed that a number of environmental groups had made the effort to travel to today's meeting, in the hopes that the region is coming back together in developing this decision-making process. We hope that this process will be as inclusive as possible, such that we can all work together to craft an effective solution for salmon, and work together as a region to secure the funding needed to make that solution a reality. I look at this gathering today with a great deal of optimism, he said, because we have managed to get many of the key parties to that decision in the same room, and we're having a productive discussion of what the goals and most appropriate governance structure ought to be. However, it's also easy to be pessimistic, because there are still some parties missing who should be a part of these discussions, and the scope of the effort before us is daunting indeed. Finally, I'd like to express some frustration, because I think that in spite of the good-faith presentations we have heard today, there is a movement afoot to force some premature decisions on this process, particularly in the funding realm.

To close out this portion of the agenda, said Stelle, we have tried to lay out the major

componnets of the decision support efforts that are now underway during the first part of this meeting. To the extent that you believe that pieces are missing which need to be added, or that other adjustments to this process are needed, it is very important that you articulate them, soon -- either through your representatives in these various processes, or to me in writing. This work is ongoing; it involves a great deal of work on the part of many, many people, and it is the heart and substance of what we're trying to develop. As you have heard, it is a most difficult and complicated effort, said Stelle, and we need to decide, amongst ourselves, whether or not we can reach agreement on a selection of preferred alternatives.

III. Discussion of River Governance Issues.

A. A Report on the Three Sovereigns Process. Stelle asked Howard Funke of the Spokane/Coeur d'Alene Tribes to describe the outcome and follow-up actions resulting from the recent meeting between the chief executives of many of the federal, state and Tribal sovereigns. The Comprehensive Review Process spawned a steering committee, Funke began, which put together a comprehensive review plan for the power side of the FCRPS. That creates a problem, from the Tribal perspective, because if you try to look at power without looking at the fish and wildlife side of the equation, you're not looking at the whole picture, Funke said.

In response, a process has been developed among the states, Tribes and federal agencies to try to address some of the fish and wildlife issues that were not covered under the Comprehensive Review, Funke said. This process has become known as the "Three Sovereigns" process.

We have had meetings with Oregon's Governor Kitzhaber and Idaho's Governor Batt; we had a meeting in Portland between the Governors of Oregon, Washington, Idaho and Montana, many of the Tribes and Federal agencies, including the White House, Funke continued. We have discussed the BPA subscription process, the separation of BPA transmission and generation operations, and the problems those create for fish and wildlife recovery, said Funke. Essentially, if BPA transfers all of those federal assets, it will no longer have the means to generate income to pay fish and wildlife costs. The potential impact on salmon recovery, as well as on resident fish and wildlife, is huge, to say the least.

In response, the Tribes have been trying to engage the states on a process for governance of the system, addressing power issues, as well as fish and wildlife issues, Funke said. Initially, much of this discussion was focused on salmon recovery; many of the entities in the basin, including the tribes I represent, stated that this is a larger issue than salmon recovery only. It also encompasses issues of water supply, land use, resident fish, wildlife and power. The spectrum is people who want to deal with salmon recovery in a vacuum, and people who want to deal with the governance of the basin from an ecosystem approach, looking at all of these issues as they interrelate.

The recent meeting in Portland, as I say, included a discussion of the BPA subscription process and other matters that could impact BPA's ability to fund future fish and wildlife recovery activities, Funke continued. Various subcommittees were formed, to deal with the subscription process, to look at the separation of BPA's transmission and generation systems, to look at the costs of fish and wildlife recovery and cultural resources. A fourth group was formed to look at governance issues. A Three Sovereigns meeting to discuss governance issues has been set for August 7-8.

The governance subcommittee, which includes myself, Ken Casavant, Duane Mecham from the Interior Solicitors' Office, Will Stelle from NMFS, John Platte of CRITFC and Brian Lipscomb of the SLaish/Kootenai Tribes, have held four or five telephone conferences, trying to come up with a range of governance options for consideration by the three sovereigns, Funke said. We've come up with several classic approaches. The approach developed by the Tribes would look at the hydrosystem on an ecosystem basis, dealing with fish, wildlife, power, water and land management decisions from the standpoint that you can't make one decision without affecting these other areas. The tribal approach is an extremely inclusive one, under which the system would be governed by the three sovereigns with input from the general public and from all stakeholders in the basin. The tribal approach includes a dispute resolution process which is designed to reward consensus and coordination; in our view, true problem-solving will not occur in this basin until there is consensus decision-making, until there is a commitment to problem-solving, and a commitment to listen to one another, said Funke.

A second approach to the governance issue, submitted by John Platte of CRITFC, is more of a single-plan approach, said Funke -- rather than talking about overhauling the governance structure or process, it focuses on choosing a particular issue, and how to go about resolving that issue. That issue, said Funke, is how to agree on a single budget and a single fish and wildlife plan for the basin -- in essence, how to merge the NMFS, CRITFC and Power Planning Council salmon recovery plans, and develop a new Memorandum of Agreement covering fish and wildlife recovery for the entire basin. A third approach to the governance issue is the current NMFS Regional Forum process, Funke added.

In response to a question, Funke said that the governance subcommittee's deliberations had yielded agreement that all three of these approaches would utilize present authorities. We looked in some detail at what the nature of those authorities would be, he said, and pretty much everyone agreed that what would be required is a new Memorandum of Agreement amongst the sovereigns.

The important thing to note, said Stelle, is that there are now a half-dozen workgroups addressing various important hydropower, financial, fish and wildlife and governance issues. It's not entirely clear when the representatives of the three sovereigns will get back together or, when they do, what general expectation there is about what will happen next. However, I think we can agree that the scope of the subject matter being addressed under the Three Sovereigns process goes well beyond the scope of what we're discussing here today, said Stelle.

B. Improving River Governance. As part of the Three Sovereigns governance discussion, NMFS was invited to submit a summary of the proposals which the federal government has made to the parties in the *American Rivers v. NMFS* litigation, for purposes of exploring whether or not it may be possible to reach a settlement of that litigation, said Stelle. This summary, dated May 12 (attached as Enclosure F), was distributed to the attorneys representing the parties in that litigation, and NMFS is currently waiting to receive comments back from those other parties, Stelle said.

This document, which has also been provided for use in the Three Sovereigns governance discussion, is basically a short synopsis of a contemplated formalization of the rules governing the NMFS regional forum, which includes the Implementation Team, the various technical teams such as SCT and the Technical Management Team, he continued. The intent is to establish more

formalized guidelines governing the manner in which those entities operate and relate to one another. The proposal also contemplates the engagement of alternative dispute mechanisms, where those would be useful in helping to settle unresolved issues; however, it does not go into any great detail about how, precisely, such an ADR mechanism would function, Stelle said.

There are also a number of other people brainstorming around the basin about ways to improve the governance process, said Alan Stay. Ultimately, I think the Three Sovereigns process is the one that will carry the weight, the prestige and the ability to get something done. Overall, though, there are a couple of things that need to happen in this governance system. First, NMFS is going to have to buy into a system in which the other parties besides NMFS are not perceived merely as consultants, asked to provide input before NMFS goes off and makes the actual decisions. I'm talking about bringing all of the sovereigns together in such a way that they all have a real place at the table, said Stay. Second, there has got to be an ultimate decisionmaking forum, where issues that cannot be resolved at other levels in the process are sent, which is not NMFS, he added. American Rivers, for example, could be such a forum, where other parties in the region could go if they're unhappy with the decision that came out of the decisionmaking process. What is NMFS's feeling about utilizing a court, arbitration or other entity to resolve such disputes, such that NMFS is no longer perceived as making such decisions privately? asked Stay.

Before Stelle could answer, Dan James of the Pacific Northwest Waterways Association, asked whether the irrigators and transportation companies he represents will have a role in the ongoing river governance discussions, before a work product is produced. I'm not talking about a public comment period, he said -- I'm talking about participation in the development of recommendations. I do envision such a role, Stelle replied; what I would recommend is that you look at the implementation processes we currently have in place. Those processes are open, not closed, and non-governmental entities do attend and observe. That's the first line of implementation work, and I encourage you to attend and participate.

To get back to Alan's question, said Stelle, from a federal perspective, there are a couple of things that are touchstones. First, we are committed to a reliable and open intergovernmental coordination effort with the other governments in the basin. Secondly, for want of something better, we will continue to be committed to the Regional Forum process, consisting of the Implementation Team and the technical committees, because, to date, another process has not been developed that will serve that intergovernmental coordination purpose.

Having said that, Stelle continued, I would also make the point that NMFS is absolutely open to specific suggestions about how to make this process better. I had hoped to spend at least a little time today discussing some of the ideas you may have. Before we get to that, however, I think we need to recognize that this governance discussion is a two-pronged effort -- on the one hand, we have the ongoing effort to select between the various long-term recovery options, to look at the effects of energy restructuring on fish and wildlife management: the major governance issues, in other words. On the other hand, there is the day-to-day grunt work many of us are engaged in, as we work through the implementation processes and as we attempt to frame those larger issues. I'm talking about the work of the System Configuration Team, the Technical Management Team, the Implementation Team etc., Stelle said.

In my view, the chore of improving how we do business relates to what techniques we might be able to employ to improve those day-to-day mechanisms, Stelle said. They may not be giant

steps, but maybe giant steps aren't necessary. Clearly, there are problems, and opportunities to improve the process. This proposal, (Enclosure F) lays out a number of incremental improvements in that day-to-day process, Stelle said. I would very much like to see the region come to some functional agreement on these smaller day-to-day improvements, looking at September, when the American Rivers discussions are scheduled to conclude, as a target date for that agreement.

Under the process I described, rather than having NMFS at the top of the heap, you would have the governors, the Tribal and state policy representatives structuring a governance process that will eventually get down to day-to-day operations, said Funke. You mean you want to start from scratch? asked Cohen. We're not talking about starting it all over again, said Funke -- all we're talking about is taking this table, adding more people to it and broadening the scope of what can be considered. Then, when agreement can't be reached, there's a place they can all go to fight over it -- namely, federal court, or arbitration. That's it in a nutshell, Funke said -- more people at this table, and a broader scope of issues they can consider.

Certainly it's very important to establish a dispute resolution process that we can collectively commit to and employ, Stelle replied. Getting back to another of Howard's points, right now, we have, per our earlier agreement, decided that what our job is here and at the Implementation Team is to oversee the implementation of the hydro portion of [inaudible], deferring our decisions of production issues and habitat issues to U.S. v Oregon and other processes. In other words, our focus is hydro issues, said Stelle. If there is a general consensus that that focus needs to be broadened, we can certainly talk about that, but that was the decision that was made a year and a half ago.

Another idea that has been discussed, Stelle said, is the possibility of hiring a facilitator or moderator for our efforts here and for the Implementation Team, at the very least. I, for one, think that's an appropriate thing to do, and would improve the process substantially. NMFS is prepared to talk about how and when a facilitator could be brought on board.

Returning to Al's questions, said Stelle, he asked, essentially, whether NMFS would be willing to share authority, or share the exercising of its decisionmaking responsibility. The point is that the people who have previously been at the table, but have seen themselves as people NMFS is consulting with, need to be at the table as partners, said Stay. They don't want to provide input, then watch NMFS make the final decision under the rubric of "best available science." My question was, is there a way that this decisionmaking process can include, in the process itself, others besides NMFS? Does that make sense?

It makes sense, but it cries out for further definition, said Stelle. Getting back to your original points, one thing you asked about was continuing court jurisdiction, where to go to resolve disputes other than NMFS. To me, Stelle said, that is the question of alternative dispute resolution techniques. Are we prepared to abrogate our responsibilities under federal law? No. Do we have the right or option to abrogate those responsibilities? No. Are we prepared to explore, with others in the region, how the exercise of those responsibilities might involve getting a more formal and reliable process in place? Absolutely, Stelle said. I'm trying to be as precise as I can, because I don't want to mislead anyone.

One thing we might do is take a couple of examples, and respecting your observations about the

perception of the process, and its lack of inclusivity, ask how the handling of those episodes or decisions might have been improved upon, Stelle said. Can we employ some sort of system by which those issues would be more fully vetted, and the options for their resolution more thoroughly resolved, before a decision gets made? The answer, from NMFS's point of view, is that those are some of the techniques that would be available through some more formalized ADR process.

As for continuing court jurisdiction, Stelle continued, this is a complicated topic. As a general matter, we have made a proposal, in the context of the American Rivers litigation, on a potential basis for a settlement. Whether or not that is something that some or all the parties involved will be willing to accept is the first question, Stelle said. If they are, what role the court would have in overseeing that implementation agreement is an issue that we will continue to discuss in the American Rivers context. Obviously, this is a very complicated question, and we need to be very precise about what is the appropriate role for the federal district court in this type of settlement. NMFS is prepared to continue to discuss that question in the context of American Rivers.

You mentioned the need for examples, said Stay. Let's say you had a measure that needed to be done under the ESA to avoid jeopardy. I can think of a multitude of measures where there might be disagreement among the sovereigns as to which course of action to take. The states and Tribes, for example, might prefer Option A, while the federal parties prefer Option B. In a case where both Options A and B are reasonable ways to attack the problem, in my view, NMFS could defer to Option A, even though their preferred alternative might be Option B. That would be one instance in which NMFS could utilize a more collaborative and inclusive decisionmaking mechanism, said Stay. I suspect that that happens all the time, said Stelle -- it's what should happen.

One concern I have about the overall governance of the basin, said Funke, is that we'll narrow our focus too much, and won't address the longterm stability of the resource. The history of governance in this basin has been nothing but attempts to control, attempts to exclude, attempts to overrule people who want to do things differently, attempts to keep certain interests away from the table. That's the old way, said Funke, and it hasn't worked. We need to bring people to the table, and then we need to listen to them, rather than shutting them out. No one disagrees with that, said Cohen. No one disagrees, but it's a major issue getting people to understand that there is more to governing the basin than salmon recovery alone, Funke said. It's a whole raft of issues, held dear by a broad array of interests. All of those interests need to be at the same table, discussing the issues that matter to them and making rational decisions in a simplified process backed up by dispute resolution. Otherwise, we will never have consensus, and the region will never develop a unified position on whether to save salmon, fish and wildlife or not.

I don't have any answers, said Steve Crow of the Northwest Power Planning Council, but it seems to me that what the governors and the Tribal leaders were saying at the Three Sovereigns meeting in June was basically, that they would like the work groups to come up with a structure, then work together, using existing processes as much as they can, to address some of these broader- context issues. Perhaps it would be appropriate to ask the Three Sovereigns process where to go with this process.

We certainly need to acknowledge that things are happening -- implementation decisions are being made, on a whole array of issues, Stelle said. Those decisions will continue to be made,

and they should be made -- we need to get on with this process. One option that is not available to those of us who are implementing the program is to put the whole thing on hold while we design something else. We have to continue to make progress, Stelle said.

So in my view, we have a couple of specific opportunities to help us work through some of these issues as a region, Stelle said. First, we have a pending case which deals with interim implementation over the next year or two; we have made some fairly substantial progress with a couple of the states, at least, in trying to structure an agreement on how to implement the effort, with some formal goals and formal processes. My suggestion is, let's see if we can structure an acceptable agreement, and, if so, try to memorialize it.

Simultaneously, said Stelle, the regional sovereigns really need to engage on how they want to make some of these larger, broader-context decisions. I think we need to come to grips with that subject this fall, and try to come up with a framework by which we agree that this is the way we will select alternatives and fully vet the issues before decisions are made, so that whatever decisions are made enjoy the fullest possible measure of regional support. It is vital that we do that, Stelle said, but that is not the work of the Executive Committee as it's currently structured.

One interim improvement to this process that can be implemented immediately is to hire an independent mediator or facilitator for at least the Executive Committee, the Implementation Team and the System Configuration Team, and I would like to proceed with that, Stelle said. Wouldn't that be a little premature? asked Funke. After all, we don't even know if this group has enough members to function, and whether or not the Executive Committee will exist in the future. I understand that there are issues to deal with, and I'm not suggesting those will go away, Funke said. I'm simply suggesting that you may put the cart before the horse if you try to hire an EC facilitator before some of the governance issues are resolved.

IV. Clean Water Act.

A. A Discussion of Water Temperature and TDG Issues. Chuck Finley, the Environmental Protection Agency's District 10 Regional Administrator, spent a few minutes discussing his agency's role in mainstem Columbia River issues. We have played a fairly moderate role to date, he began, but the Clean Water Act contains some potent tools which could be used in the effort to improve fish runs in the Columbia. From here on out, he said, I think the EPA would like to be a little more aggressive in the use of those tools. One of our focuses, as an agency, is to try to make the CWA much more relevant to natural resource protection issues. With that as a frame of reference, I'd like to run through a few ideas, Finley said.

First of all, the topic of water quality standards is vital to the protection and restoration of fish stocks in the Columbia Basin, he continued. In recent years, EPA has focused much of its efforts on the dissolved gas water quality standards, and we're now shifting some of that focus to temperature issues. We have been working closely with the states in the adoption of tighter temperature standards; we're very close to approving Oregon's water quality standards, which include tougher temperature standards east of the Cascades. Next week, we will be promulgating water quality standards for the State of Idaho under a federal court order, which will include temperature standards for the protection of bull trout. We're also working closely with the State of Washington to ensure that the temperature standards they are getting ready to adopt will be

consistent with those in Idaho and Oregon.

We are also under court order in all three states to oversee total natural daily load (TNDL) standards in many water systems which are important tributaries to the Columbia, Finley continued. The actions we have been working on in those states are very much complimentary to what's happening on the mainstem.

At the same time, we have a responsibility to work closely with our sister federal agencies, and we intend to do whatever we can to strengthen those ties, Finley said. Finley described some of those activities, as well as continued EPA efforts to strengthen its ties with state water quality agencies and legislatures to ensure that EPA's water quality standards are incorporated in the states' water management activities. He added that EPA's expertise would also be of use in the context of the 1999 decision, particularly in evaluating the effects of drawdown. To close, he said, I guess I'd like to hear what you think EPA can do to help you.

How should we perceive your renewed interest in fish issues? asked Field. Up to now, NMFS has been the big federal dog on this issue. Are you saying that EPA now wants to be a big dog as well? I'm saying that EPA wants to be a helpful dog, Finley replied. We want to make sure that the statutes we administer are incorporated in whatever recovery decisions are made.

What about the dissolved gas levels coming down from Canada? asked Joe Peone of the Colville Tribe. In many cases, Columbia River TDG levels are already in excess of the EPA and state standards before the river enters U.S. territory. We do have a forum in which to engage Canada in a discussion of the dissolved gas issue, which includes participation from the director of Environment Canada and the Minister of the Environment for British Columbia, Finley replied. This isn't an issue we have raised at that forum to date, although the next meeting of that group is scheduled for next Thursday, and I would be happy to bring this up.

Wendell L. Hannigan of the Yakima Nation said that he had been asked to say a few words on the subject of water quality standards. One of the jobs I had before becoming a member of the Tribal Council was water quality administrator for the Yakima Nation, Hannigan began. In that capacity, I had a lot of opportunity to interact with EPA, and I'm glad that they're making overtures to work with the other federal agencies on the salmon recovery effort. Mary Lou Soscia has encouraged the Tribes to speak out on some of the matters which affect us, and water quality is certainly one of these matters. I would like to say that I have always appreciated EPA and the excellent Indian policy they have developed, although part of their problem is funding -- that policy is like a skeleton, with no meat on its bones.

In reference to the current discussion, said Hannigan, I hope that you will continue to recognize your trust responsibilities to the Tribes. You have implemented agreements between EPA and the states, and I would hope that you continue that effort to forge agreements between EPA and the Tribes. So far, I think, much of that effort has been limited to on-reservation activities, he continued. In a broader sense, when we start talking about the Columbia River Basin, we may need some further legal clarification in terms of trust responsibilities.

Water, like salmon, is one of our sacred foods, Hannigan continued. Salmon and water are our first foods, followed by wildlife, roots and berries. We pay our respects to that water. At one time, our Chief, standing on the river bank, said that he wanted free, fresh-flowing, clean water

for our fish. Today, I need a battery of attorneys and scientists to describe what is meant by that statement. The Tribal beliefs are religious and spiritual in nature, but we're trying to make that transition to the best available science. To that end, the Tribes have assembled an excellent staff of scientific and technical minds, to help the region find some of the answers that we're all seeking. Despite the current controversy surrounding the Executive Committee, I'm sure that we can continue to seek and, ultimately, find a solution, if we all work together toward that end. I'm glad that we could be here, glad that we could listen, and I hope that we can help in the decision-making effort down the road.

Raphael Bill of the Umatilla Tribe read a brief statement, to the effect that NMFS has acknowledged that the hydrosystem, and the Biological Opinion governing operation of that hydrosystem, must comply with all applicable federal laws and treaties. Among these laws is the Clean Water Act, Bill said. So far, however, attention has been focused almost exclusively on dissolved gas water quality standards, while the temperature standards have been largely ignored. This has occurred despite the fact that minimal fish mortality can be attributed to dissolved gas supersaturation, while literally tens of thousands of fish have died as a result of high water temperatures.

It is time that we give the temperature standard equal emphasis, said Bill. It's time to live up to our commitments under the Clean Water Act. Otherwise, we risk a repeat of the episode at McNary Dam in 1994, when 90,000 salmon were killed while waiting for a barge to arrive to transport them. The Umatilla Tribes appreciate the interest of the EPA in addressing this serious issue. We also appreciate NMFS' renewed attention to this matter. We must resolve it, if we are ever to succeed in rebuilding the runs and to begin to comply with the Treaties of 1855.

V. Follow-Up Actions and/or Meetings.

The next meeting of this group was tentatively set for the first week of October, once the American Rivers v. NMFS discussions are concluded. Meeting notes prepared by Jeff Kuechle, BPA contractor.